UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/323,597	06/01/1999	DANIEL E. AFAR	1703-007.US1	9388

25225 7590 05/20/2003

MORRISON & FOERSTER LLP
3811 VALLEY CENTRE DRIVE
SUITE 500
SAN DIEGO, CA 92130-2332

EXAMINER	
NICKOL, GARY B	

ART UNIT	PAPER NUMBER
1642	

DATE MAILED: 05/20/2003

37

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/323,597	Applicant(s) AFAR ET AL.	
	Examiner Gary B. Nickol Ph.D.	Art Unit 1642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *72-82* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *72-82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Response to Amendment

The Amendment filed February 24, 2003 (Paper No. 36) in response to the Office Action of August 23, 2002 is acknowledged and has been entered.

Claims 83-84 were cancelled.

Claims 72-82 are currently under consideration.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Rejections Maintained:

Claims 72-82 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention for the reasons of record in Paper No. 34, pages 7-10.

With regards to the predictability of antibody therapy to treat human cancer, Applicants argue (Paper No. 36, page 6) that the documents assembled by the Office in support of the enablement rejection, instead, appear to support patentability of the instant claims. Applicants argue that the recitation of US Patent No. 5,770,195 ('195), which claims a method of inhibiting the growth of tumor cells with an antibody to HER-2 receptor, is currently being administered to actual people in the clinic. Applicants point out that the disclosure of the '195 patent does not

teach the occurrence of the HER-2 receptor in normal tissue. This argument has been considered but is not found persuasive, as applicants have stated for the record that the HER-2 receptor is indeed expressed on cardiac tissue. Further, the predictability of successful treatment of breast cancers that overexpress the HER-2 receptor does not extrapolate to the enablement of the instantly claimed invention as the methods and teaching of the '195 patent are entirely distinct and do not parallel the teachings of the instant disclosure for the reasons of record.

Applicants further argue that the Weiner article (Seminars in Oncology, Vol. 26, No.4, 1999, pages 41-50) indicated "promising results" and that the contraindications for successful antibody directed therapies such as antigenic heterogeneity and insufficient target specificity are not relevant to the present disclosure because the newly amended claims are specific for a particular gene product. This argument has been considered but is not found persuasive because applicants have not provided reasonable evidence that narrowing the claims to a specific gene product changes either the antigenic heterogeneity or target specificity of antibody-directed therapies. Applicants have also argued that the only normal tissue that shows expression levels that might be considered troublesome is the prostate. However, applicants go on to point out that should the prostate be destroyed in the process of treating the malignancy, this would not be fatal or even particularly deleterious to the subject. This argument has been considered but is not found persuasive; as there is no evidence to support that any antibody therapy would predictably target and successfully destroy the prostate gland either *in-vitro* or *in-vivo*. Further, other normal tissues such as liver, kidney and pancreas did reveal measurable expression of the 20P1F12/TMPRSS2 gene and applicants have not demonstrated reasonable guidance that

antibody treatments directed at the expression product of the 20P1F12/TMPRSS2 gene would not be deleterious to these tissues or troublesome to the cancer patient.

Applicants further argue that the lack of a specific demonstration of growth inhibition of tumor cells is not required by law, and the utility of the presently claimed subject matter is credible as demonstrated by the Weiner article. This argument has been considered but is not found persuasive, as the utility of the presently claimed subject matter was not raised in the previous Action (Paper No. 34). Further, lack of working examples is given added weight in cases involving an unpredictable and undeveloped art such as the treatment of cancer with antibodies. In the instant case, the claims are so broadly drawn, the guidance is so limited, and the art is so unpredictable that the skilled artisan is presented with a multitude of un-linked alternatives with no guidance as to which will enable use of the invention as claimed.

In summary, it appears that Applicants have argued and discussed the references individually without clearly addressing the combined teachings. It must be remembered that the references are relied upon in combination and are not meant to be considered separately as in a vacuum. It is the combination of all of the cited and relied upon references that determine the state of the art with regard to the claimed invention. Thus, applicant's arguments have not been found persuasive and the rejection is maintained.

New Rejections:

Claims 72-82 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not

described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants' referral to the plasmid deposit on page 32, line 9 of the specification is an insufficient assurance that all of the conditions of 37 CFR sections 1.801 through 1.809 have been met. If the deposits were made under the provisions of the Budapest Treaty, filing of an affidavit or declaration by applicants, assignees or a statement by an attorney of record over his or her signature and registration number stating that the deposits have been accepted by an International Depository Authority under the provisions of the Budapest Treaty, that all restrictions upon public access to the deposits will be irrevocably removed upon the grant of a patent on this application and that the deposit will be replaced if viable samples cannot be dispensed by the depository is required. This requirement is necessary when deposits are made under the provisions of the Budapest Treaty as the Treaty leaves these specific matters to the discretion of each State.

All other rejections and or objections are withdrawn in view of applicant's amendments and arguments there to.

No claim is allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary B. Nickol Ph.D. whose telephone number is 703-305-7143. The examiner can normally be reached on M-F, 8:30-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on 703-308-3995. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Gary B. Nickol Ph.D.
Examiner
Art Unit 1642

GBN
May 7, 2003

ANTHONY C. CAPUTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600